



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

MEMO

TO Ragesh R. Patel *ref*
Regional Manager
Environmental Cleanup and Brownfields

FROM Lyle de la Rosa *LD*
Geologic Specialist

THROUGH C. David Brown, P.G. *CDB*
Professional Geologist Program Manager

DATE January 28, 2019

RE ECB – Land Recycling Program
Act 2 Technical Memo Summary
Remedial Investigation Report
eFACTS PF No. 819178
VMM Eckman LP (former Quad Graphics facility)
4581 Lower Valley Road
West Sadsbury Township
Chester County

Property Owner Name and Site Address: The property is owned by VMM Eckman, LP

Act 2 Standard Sought: Non-residential Statewide health and site-specific standards for soil and groundwater

Property Size: 57 Acres (42 acres of open vegetation, 15 acres covered with buildings and/or asphalt)

Project Site History: The site operated as a printing facility by multiple tenants/owners from 1970 to 2016 until it was purchased by VMM Eckman, LP. On November 26, 1988, an accidental surface release of 3,500 to 6,000 gallons of solvent occurred at the vapor recovery unit (northcentral-northwest corner of the facility).

In 1989, EPA arranged for NUS Corporation (NUS) to conduct environmental cleanup of the site through the Resource Conservation and Recovery Act program. Four (4) USTs were removed from the southern tank field in October 1998 and four (4) USTs were removed from the northern tank field in November 1998 by NUS Corporation, under the supervision of EPA. On October 31, 1993, Quebecor personnel discovered a ruptured subsurface line discharging toluene-based solvent; the spill was remediated by GES and completed the project in September 1999 per USEPA approval.

Site Cleanup History: The USEPA approved a 2007 Corrective Measures Completion Report for soil and groundwater, terminating the Consent orders for the site. The soil investigation conducted in 2016 included the installation of twenty-two (22) soil borings to depths of 25 ftbg or where saturated soils were encountered. Grab samples were collected between 0-2 ftbg and 2-15 ftbg; no exceedances of the NR-SHS were observed in the lab results. Sediment samples were collected from the onsite stormwater retention basins as well and no exceedances were detected. Samples were analyzed for VOCs, SVOCs, RCRA metals and hexavalent chromium.

There are no current uses for groundwater and future use will be prohibited via environmental covenant. A well search was conducted, and no public supply drinking wells were identified within $\frac{3}{4}$ of a mile of the site. There are no subsurface utilities or other pathways present at the site.

The groundwater investigation in 2016 included the collection of fourteen (14) grab groundwater samples from temporary piezometers and results included elevated concentrations of benzene, toluene, arsenic, chromium, lead and trichloroethylene above NR-SHS MSCs.

Four monitoring wells were advanced to depths of 17-20 ftbg in October 2017 and samples from October and November 2017 continued to show arsenic, benzene, toluene, trichloroethylene (TCE) and tetrachloroethylene (PCE) above MSCs. Downgradient monitoring well (MW-1-17) along the property boundary has never demonstrated any exceedances of the onsite COCs. The groundwater concentrations exceeding the VI screening values were modeled using the J&E and Quick Domenico models and results indicate that no unacceptable VI exposures would occur from the groundwater. The groundwater detections are not increasing and are horizontally delineated within the property boundaries, however there is no vertical delineation (deep well groundwater data) for the chlorinated solvents. Additionally, a risk assessment is required for screening out vapor intrusion as a complete pathway when the J&E model is implemented. To date, no risk assessment has been submitted to the Department.

GHD conducted a PNDE environmental survey in October 2017, which revealed that a portion of the site is within the habitat of the bog turtle. The October 11, 2017 Phase 1 survey in accordance with the US FWS protocols was conducted by Mr. Scott Bush, P.W.S. (agency approved bog turtle surveyor) and determined the site provided suitable living habitats. A wetland with potential habitat for bog turtles and Mead's sedge was identified at the Site. No other threatened or endangered species were identified on Site. No observed impacts to vegetation or the wetlands were observed during the ecological site inspection. There is not a complete pathway to the wetlands from Site soils or groundwater so no further ecological assessment was completed for the Site. GHD also included a habitat assessment for the plant species of concern, Mead's Sedge and Scarlet Indian Paintbrush (the vegetative species were not located on the site).

A letter was issued by PADCNR and US FWS, determining no impact is anticipated to either species of concern. No other impact is anticipated on any other species.

After further review, DEP SERO and Central office confirmed that there is no open pathway for potential impact to the habitat and no further ecological risk assessment is required.